What is Claimed is:

1.   A frequency offset detection processing system

2   including a TCXO (Temperature Compensated Crystal

3   Oscillator, Temperature Compensated X'tal Oscillator)

4   which generates a reference frequency, a demodulation

5   unit which demodulates a reception signal, a frequency

6   offset detection unit which detects a frequency offset

7   from a phase moving amount between symbols of adjacent

8   pilot signals, and an AFC (Auto Frequency Control)

9   control unit, wherein said AFC control unit comprises

10   a majority determination unit which determines

11   whether each of phase moving amount detection values by

12   a plurality of frequency offsets, which are detected for

13   a predetermined time and read out from said frequency

14   offset detection unit, is a positive value or a negative

15   value, and totalizes to determine which of the positive

16   values and the negative values are larger in number,

17   a detection value conversion unit which

18   converts the phase moving amount detection values read

19   out from said frequency offset detection unit in

20   accordance with a majority determination result from

21   said majority determination unit,

22   an averaging processing unit which executes

23   processing for adding the phase moving amount detection

24   values read out from said frequency offset detection

25   unit and converted by said detection value conversion

26   unit and dividing a sum by the number of added values,

27   a correction value calculation unit which

28   calculates a frequency offset from the phase moving

29   amounts after averaging processing by said averaging

30   processing unit, and

31   a TCXO control unit which corrects TCXO

32   control on the basis of the frequency offset calculated

33   by said correction value calculation unit.

2.   A system according to claim 1, wherein in

2   converting the phase moving amount detection values,

3   when it is determined as the majority

4   determination result that the number of negative

5   detection values is smaller, said detection value

6   conversion unit converts the negative detection values

7   to +360° + negative detection values, and

8   when it is determined as the majority

9   determination result that the number of positive

10   detection values is smaller, said detection value

11   conversion unit converts the positive detection values

12   to -360° + positive detection values.

3.   A frequency offset detection processing method

2   comprising:

3   the TCXO step of generating a reference

4   frequency;

5   the demodulation step of demodulating a

6 reception signal;

7   the frequency offset detection step of

8 detecting a frequency offset from a phase moving amount

9 between symbols of adjacent pilot signals;

10   the majority determination step of determining

11 whether each of phase moving amount detection values by

12 a plurality of frequency offsets, which are detected for

13 a predetermined time and read out in the frequency

14 offset detection step, is a positive value or a negative

15 value, and totalizing to determine which of the positive

16 values and the negative values are larger in number;

17   the detection value conversion step of

18 converting the phase moving amount detection values in

19 accordance with a majority determination result;

20   the averaging processing step of executing

21 processing for adding the phase moving amount detection

22 values by the plurality of frequency offsets after

23 conversion and dividing a sum by the number of added

24 values;

25   the correction value calculation step of

26 calculating a frequency offset from the phase moving

27 amounts after averaging processing; and

28   the TCXO control step of correcting TCXO

29 control on the basis of the calculated frequency offset.

4.   A method according to claim 3, wherein the

2 detection value conversion step comprises the steps of

3   in converting the phase moving amount

4   detection values, when it is determined as the majority

5   determination result that the number of negative

6   detection values is smaller, converting the negative

7   detection values to +360° + negative detection values,

8   and

9   in converting the phase moving amount

10   detection values, when it is determined as the majority

11   determination result that the number of positive

12   detection values is smaller, converting the positive

13   detection values to -360° + positive detection values.